

TOYOTA

SERVICE BULLETIN

TOYOTA MOTOR SALES, U.S.A., INC.

VOLUME

10

REFERENCE ENGINE _____
NUMBER 011
DATE 10-20-89
MODEL RN

Page 1 of 3

22R-E, 22R-TE HARD STARTING/ROUGH IDLE

The following parts are now available to improve the startability and idle stability after a hot dead soak or an extended dead soak.

MODIFICATION INFORMATION:

CONDITION DESCRIPTION	IMPROVEMENT
1 Hard Starting/Rough Idle after a Hot Dead Soak of 15-30 minutes.	Reduce the temperature where Temperature Switch No. 2 activates the fuel pressure-up system from 110°C (230°F) to 60°C (140°F).
2 Hard Start/Long Crank Time after an extended dead soak of 3 to 4 hours.	Increase temperature at which the Start Injector Time Switch activates the cold start injector from 35°C (95°F) to 45°C (113°F).

YEAR/MODEL APPLICATION:

CONDITION	MODEL YEAR	ENGINE	VEHICLE
1 Temperature Switch No. 2	1985-1987	22R-E	4WD TRUCK and 4RUNNER
	1986-1987	22R-TE	
2 Cold Start Injector Time Switch	1985-1987	22R-E	2WD TRUCK 1-TON TRUCK CAB/CHASSIS 4WD TRUCK 4RUNNER
	1985-1988	22R-TE	2WD TRUCK 4WD TRUCK 4RUNNER

PART NUMBER INFORMATION:

PREV P/N	NEW P/N	COND	PART NAME
89428-28030	89428-26020	1	Switch, Temperature No. 2
89462-30011	89462-20050	2	Switch, Start Injector Time

22R-E, 22R-TE HARD STARTING/ROUGH IDLE (Cont'd)

PRODUCTION CHANGE INFORMATION:

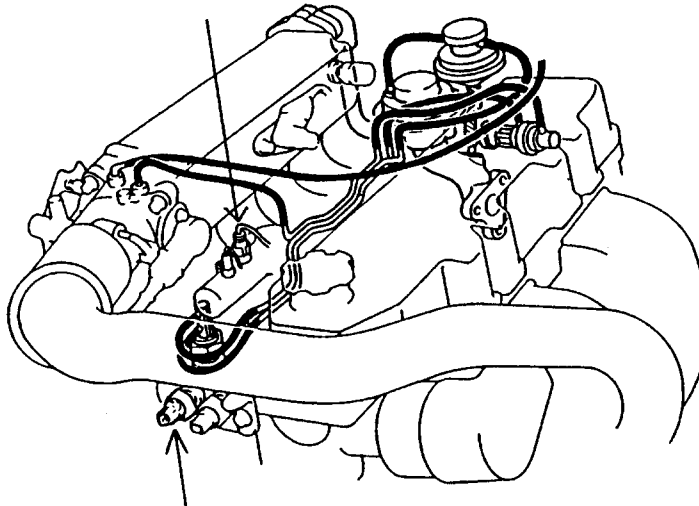
CONDITION 1: Temperature Switch No. 2 specification (same as field fix) changed at beginning of 1988 model year.

CONDITION 2: ECU modification at beginning of 1988 model year to activate cold start injector at higher temperature (22R-E only).

REPAIR PROCEDURE:

1. Replace cold start injector time switch with the new part.
2. On vehicles equipped with a pressure-up system, (see application chart on page 1) also replace Temperature Switch No. 2 with the modified one.

Switch, Temperature No. 2



Switch, Start Injector Time

3. For vehicles equipped with Air Conditioning, the ACV terminal must be disconnected from the ECU when installing the modified Temperature Switch No. 2 (Condition 1). This is necessary to prevent the Engine Idle-Up from working continuously after warm-up.

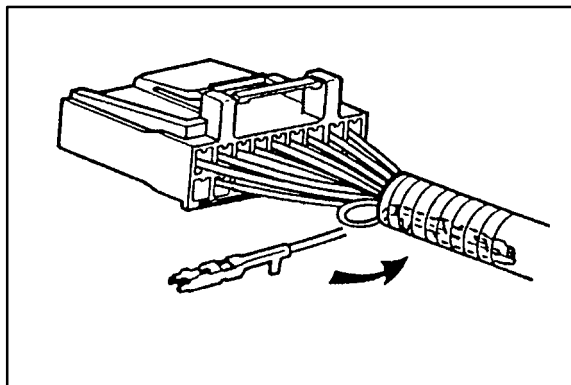
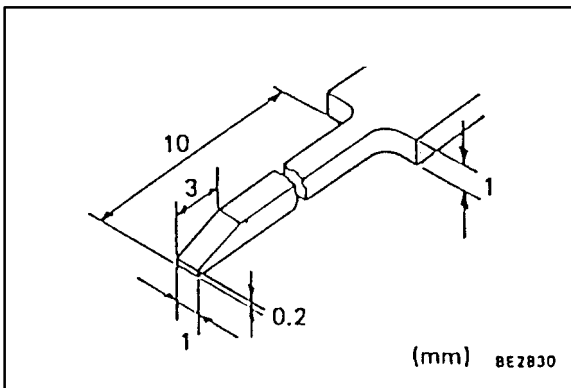
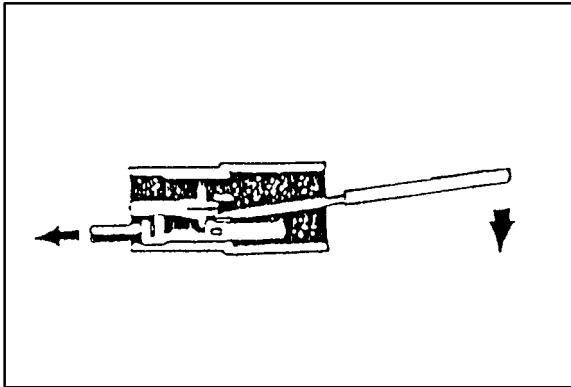
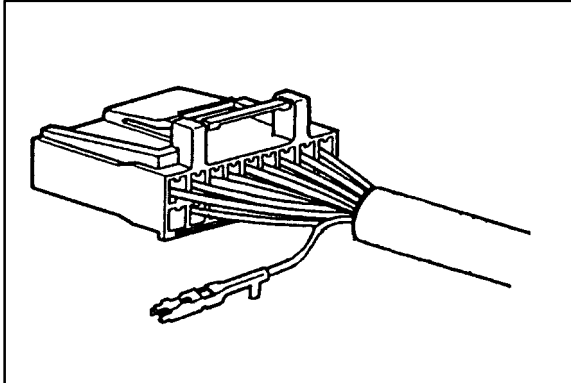
ECU Connectors

E ₀₁	No.10	STA	V _F	NSW	Fpu	W	T	IDL	IGI		KNK	Ne	L ₃	L ₁	Vc	Vt	THA	BATT	+B ₁	
E ₀₂	No.20	IGI	E ₁		ACV	TIL	TSW		E ₂	Ox	Vcc	VTA	THW	ECT	L ₂	E ₂₁	SPD	SPD	B/K	+B

Remove This Terminal

22R-E, 22R-TE HARD STARTING/ROUGH IDLE (Cont'd)

HOW TO REMOVE THE WIRE TERMINAL



1. Insert a miniature screwdriver from the open end. Move the locking clip to the unlocking direction () and hold it in this position.

- Do not apply excessive force to the terminal.

- Do not pry the terminal with the screwdriver.

2. Carefully remove the terminal without using excessive force.

3. Wrap the removed wire terminal with electrical tape. Tuck the terminal into the harness protector and secure with electrical tape.